

Informatics Institute of Technology

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H3H: Hotel Transactional and Client Statistics Prediction Using Data Mining

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ABSTRACT

Travel and leisure, being one of the fastest growing industries in the world, has been adapting and keeping up with the latest technologies introduced to increase their business productivity. Traditional guest books at hotel receptions, have now been replaced by computerized systems, hotel restaurant menus and seating structures can now be viewed on tablets instead of a printed menu card. The access to a floor in an elevator is also now controlled by the guest's room key. Given such an improvement and use of trending technologies, it is only sensible that the managerial decisions of a hotel, are also determined by some sort of computerized mechanism.

Hoteliers, use the latest technologies to stay ahead of their rivals both in terms of operational and managerial decision making and practices. A variety of different tools and products are available in the market in order to support the effective and competitive operation of a hotel. However, similar to any other trade, the most important factor for the hospitality industry, is its customer base. Knowing and catering the exact needs of their customers, at the best of their capacity, and achieving competitive advantage over their rivals, is the key objective of any hotelier.

H3H will be developed to predict potential customer behavior and expenditure, using the historical customer details held by the hotel. The implementation of H3H will be using classification algorithms to perform data mining on datasets, to calculate predictions.

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Key Words : Data Mining; Prediction; Hotels; Classification Algorithm; Naive Bayesian Classification; Prediction Analyzer